

AMENDMENTS

In the Claims:

1-6. (Canceled).

7. (Currently amended) An isolated protein which is produced in a larger amount in hypothalamus tissue of obese animals as compared to lean animals and stimulates weight gain comprising an amino acid sequence as set forth in SEQ ID NO:14 or an amino acid sequence encoded by a nucleotide sequence that is capable of hybridizing to a nucleotide sequence encoding SEQ ID NO:14 under high stringency conditions of at least 31% v/v to at least about 50% v/v formamide, from at least 0.01M to at least about 0.15M salt for hybridization, and at least about 0.01M to at least about 0.15M salt for washing conditions at 42°C.

8. (Canceled).

9. (Currently amended) An isolated protein which is produced in a larger amount in hypothalamus tissue of obese animals as compared to lean animals and stimulates weight gain, said protein being encoded by a nucleotide sequence as set forth in SEQ ID NO:13 or a nucleotide sequence that is capable of hybridizing to SEQ ID NO:13 under high stringency conditions of at least 31% v/v to at least about 50% v/v formamide, from at least 0.01M to at least about 0.15M salt for hybridization, and at least about 0.01M to at least about 0.15M salt for washing conditions at 42°C.

10. (Previously Presented) A composition comprising a protein according to claim 7 or 9 or an agonist or antagonist thereof together with one or more pharmaceutically acceptable carriers and/or diluents.

11. (Withdrawn) A method for treating a subject comprising administering to said subject a treatment effective amount of a protein according to any one of claims

7 to 9 or a derivative, homologue, analogue or mimetic thereof or a genetic sequence encoding same or an agonist or antagonist of said protein or genetic sequence for a time and under conditions sufficient to effect treatment.

12. (Withdrawn) A method according to claim 11 wherein the treatment is in respect of obesity, anorexia, weight maintenance, energy imbalance, diabetes, metabolic syndrome, dyslipidemia, hypertension and/or insulin resistance.

13. (Withdrawn) A method of treatment or preventing obesity in a subject, said method comprising administering to said subject an antagonist of beacon or *beacon* gene expression for a time and under conditions sufficient to reduce the levels of beacon in hypothalamus tissue in said subject.

14. (Withdrawn) An antibody to a protein according to any one of claims 7 to 9 or a derivative, homologue, analogue or mimetic of said protein.

15. (Withdrawn) An antibody according to claim 14 wherein the antibody is a monoclonal antibody.

16. (Withdrawn) Use of a protein as defined by any one of claims 7 to 9 or a genetic sequence as defined by any one of claims 1 to 6 in the manufacture of a medicament for the treatment of one or more of obesity, anorexia, energy imbalance or diabetes.

17. (Withdrawn) A method of detecting beacon or a derivative or homologue thereof in a biological sample, said method comprising contacting said biological sample with an antibody specific for beacon or its antigenic derivatives or homologues for a time and under conditions sufficient for a complex to form and then detecting said complex.

18. (Withdrawn) A method for detecting expression of *beacon* or its derivatives or homologues in a tissue sample from a subject, said method comprising detecting the presence or amount of *beacon* mRNA in said sample.

19. (Withdrawn) A method according to claim 17 or 18 for use in determining the risk of development of obesity, anorexia, energy imbalance, diabetes, metabolic syndrome, dyslipidemia, hypertension and/or insulin resistance.